POLICY BRIEF

Human Resources Special Education Teacher Recruitment: Utilizing Grow Your Own

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Abstract

This article seeks to analyze the implementation process of a Grow-Your-Own (GYO) model to address special education certified teacher recruitment and retention. Though rooted in California, the needs articulated here are generalizable throughout the U.S. It addresses human resources managers who may seek to implement a GYO model for teacher recruitment at the site level. By leveraging national and state databases, well-respected research, and several qualitative interviews with those currently overseeing a GYO model, the article answers: a) what persistent gaps in special education teacher pipelines and equity outcomes currently exist, b) why GYO models meet these unique challenges, and c) how Leader-Member Exchange Theory can aid implementation of GYO modeling at the site level.

The author concludes with several key recommendations for districts, and specifically HR managers among them: 1) *Recognize the need for long-term planning and conduct needs analysis with current staff.* 2) *Develop capacity through culture and strategic partnering including grant funds-seeking,* and 3) *shadow current successful programs.*

Keywords: *Teacher Recruitment, Grow Your Own Models, Special Education*

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Introduction

In 2016, California Superintendent of Public Instruction Tom Torlakson addressed the state Board of Education with a problem: On average, inexperienced/uncertified teachers primarily serve poor and minority students. The converse – White and relatively affluent students experience well-trained and seasoned teachers – was also true (California Department of Ed., 2016). Torlakson positions teacher preparation and retention as an equity issue for student success, a lens which this brief adopts while discussing how Grow-Your-Own Models can address a chronic shortage of highly qualified special education teachers.

This article analyzes the implementation of a Grow-Your-Own (GYO) model to address special education certified teacher recruitment and retention. More specifically, it serves as a human resources model for: a) what gaps in special education teacher pipelines and equity outcomes exist, b) why GYO models meet these unique challenges, c) which theory of leadership/motivation best applies to GYO, and d) how GYO modeling works. Though various recruitment models exist which are termed "Grow-Your-Own," this brief will limit its definition and discussion to site-originated models whereby paraprofessional staff (often termed "teachers' aids" or "classified paraprofessionals") are mentored and trained to become credentialed special education teachers (Valenzuela, 2017). Furthermore, while this brief utilizes Leader-Member Exchange Theory (LMX) to propose how GYO can address both school staffing and student outcome disparities, the author supplements theory with primary interviewing of two HR staff currently implementing GYO at the district level in Northern California.

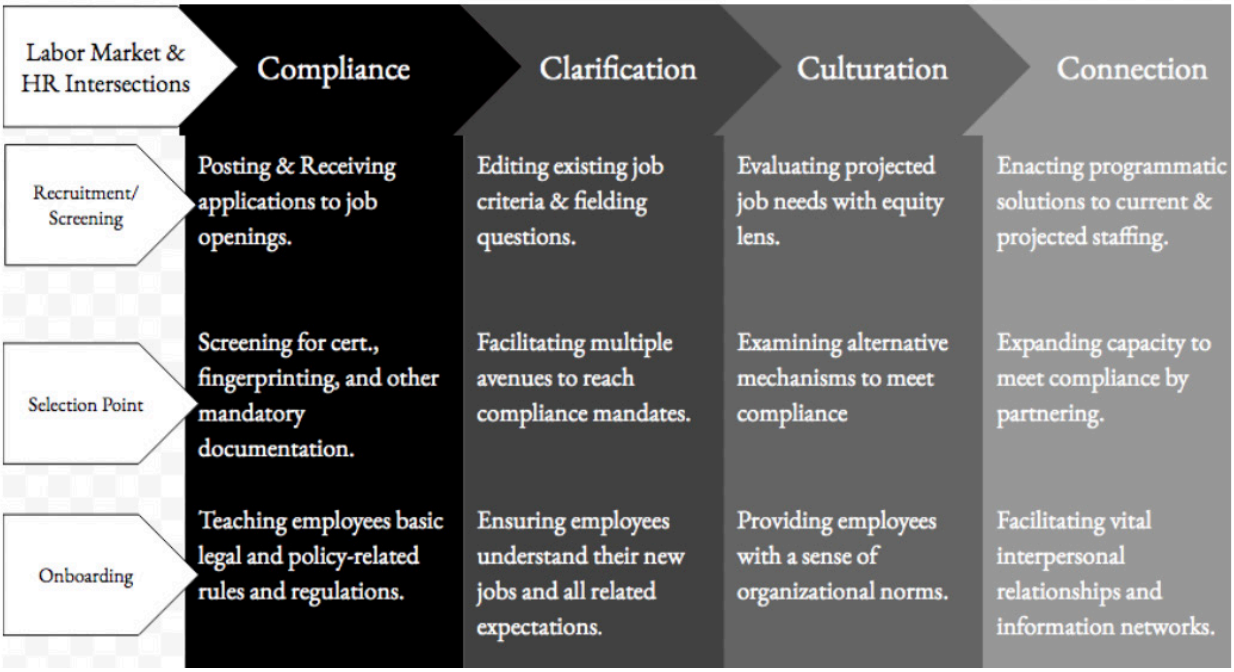
Human Resources Departments and Staff Recruiting

One of the key roles human resources (HR) personnel play in school districts is the recruitment of skilled staff and the strategic planning of future staffing needs (Webb & Norton, 2013). Nationally, 16% of K-12 teachers turn over each year, leaving a site-level vacancy that often must be filled (*NCES School and Staffing Survey, 2013*) to meet capacity demands. Additionally, research supports that high-quality teachers are the most influential determinant of student success (Rivkin, Hanushek, & Kain, 2005) and future earnings (Chetty et. al., 2011). In the last decade, increasing K-12 populations (U.S. Dept. of Ed., 2015) and class size reductions (U.S. Dept. of Ed., 2004) contributed to growing workforce shortages, which are projected to expand further (Hussar & Bailey, 2014).

However, a 2015 Center for American Progress survey of a nationally representative national sample of 200 school districts reveals that human resources recruitment practices are often hyperlocal, untargeted, and lack strategic diversity mechanisms (Konoske, Partelow, & Benner, 2016). This misalignment of supply/demand and HR strategy often results in teacher and administrative staffing shortages and an over-reliance on inexperienced, uncertified teachers, especially in high-poverty and high-minority schools (Ingersoll & Merrill, 2010).

Though human resources departments are often mired in the complexities of compliance, best practices in human resources leadership necessitates moving beyond a compliance or reactionary role to proactive forecasting (Webb & Norton, 2013). The Society for Human Resource Management (SHRM) posits a theoretical framework of this shift in its "4 C's Model" which the author has adapted in Figure 1. The model advances the theory that recruitment/selection of new staff and induction/onboarding should be viewed as one continuum (Bauer, 2004). Therefore, SHRM posits that though compliance lenses provide critical functions within an organization, moving HR staff beyond mere compliance to fostering staff acculturation and connection yields lasting benefits through improved collegiality (Runhaar, Konermann, & Sanders, 2013) and reduced attrition rates (College Board, 2006; McCullom, 2011). Therefore, the author will build on the "4 C's Model" later when clarifying the role for HR in implementing GYO models.

Figure 1: 4 C's of Human Resources in Recruitment, Selection and Onboarding New Employees



Adapted from Bauer, T. (2004). Onboarding New Employees: Maximizing Success. SHRM Publications

The Problem: Persistent Gaps in Special Education Teacher Pipelines and Student Equity

Chronic need for special education teachers. Though teacher shortages are much-discussed in the popular press, districts – and requisite HR personnel – experience staffing challenges incongruently by region, by school demographics, and by teacher certification area (Feng & Sass, 2013). Table 1 (Appendix A) illustrates the percentage of schools reporting vacancies they were unable or found very difficult to fill (NCES, 2016). Though only 9.1% of schools report difficulty recruiting elementary teachers, more than **triple** that amount relay difficulty staffing special education positions. Furthermore, staffing provision disparities increase with concentrations of student poverty. Just shy of one-third of all schools serving high-poverty populations document being very challenged or unable to fill special education positions. The American Association for Employment in Education (AAEE) echoes these findings in its teacher supply/demand assessment (see Figure 2). Across **all** U.S. regions, AAEE reports some or considerable shortages in the special education teacher preparation pipeline.

Figure 2: AAEE's Teacher Supply and Demand, by Region, 2016-17

Elem./ Middle	Pre-K Education	3.42	3.67	3.75	3.48	2.91	3.32	3.00	2.51	3.00	4.67	3.19
	Kindergarten/Primary Education	3.39	3.63	2.58	2.78	2.85	3.18	2.63	2.04	2.00	3.00	2.85
	Intermediate Education	3.38	3.79	2.82	2.64	3.22	3.43	2.81	2.56	2.50	3.25	3.12
	Middle School Education	3.72	3.93	3.64	3.35	3.54	3.90	3.21	3.17	3.00	3.50	3.55
Adm.	Elementary Principal	3.31	3.24	3.53	3.23	3.30	3.04	3.38	3.13	4.50	2.67	3.22
	Middle School Principal	3.31	3.35	3.80	3.35	3.50	3.24	3.57	3.31	5.00	3.33	3.39
	High School Principal	3.31	3.45	3.93	3.45	3.61	3.39	3.80	3.52	5.00	3.33	3.53
Special Education	Multicategorical Special Education	4.64	4.40	4.50	4.55	4.43	4.60	4.31	4.29	4.25	5.00	4.45
	Dual Cert (General & Special Ed.)	4.33	4.52	4.56	4.21	4.55	4.43	4.10	3.87	4.33	4.33	4.27
	Early Childhood Special Education	4.57	4.29	4.80	4.38	4.18	4.48	4.23	3.62	4.67	4.67	4.23
	Emotion/Behavioral Disorders Sp. Ed.	4.62	4.58	4.86	4.65	4.57	4.59	4.50	4.25	4.67	4.67	4.55
	Hearing Impaired Special Education	4.79	4.43	4.62	4.75	4.53	4.66	4.29	4.47	5.00	4.33	4.54
	Learning Disability Special Education	4.54	4.38	4.46	4.40	4.27	4.50	4.12	3.94	4.33	4.00	4.31
	Cognitive Disabilities Special Ed.	4.69	4.38	4.62	4.44	4.33	4.56	4.13	4.09	5.00	4.00	4.38
	Mild/Moderate Disabilities Sp. Ed.	4.62	4.37	4.38	4.33	4.38	4.46	4.20	4.03	4.25	4.00	4.32
	Severe/Profound Disabilities Sp. Ed.	4.71	4.58	4.71	4.78	4.63	4.73	4.43	4.41	4.67	4.67	4.61

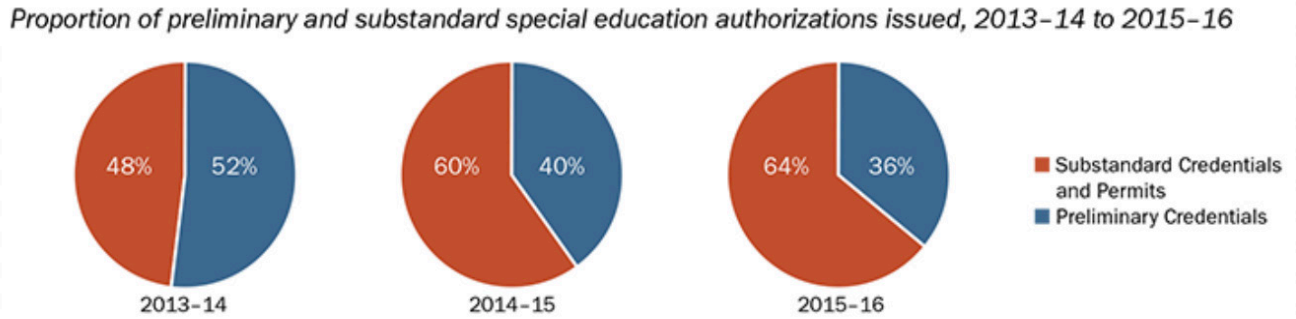
Considerable shortage (4.21 – 5.00)	Some shortage (3.41 – 4.20)	Balanced (2.61 – 3.40)	Some surplus (1.81 – 2.60)	Considerable surplus (1.00 – 1.80)

Source: American Association for Employment in Education (2017). Educator Supply and Demand Report.

In California, the supply gap of highly qualified special education teachers is acute and growing (See Figure 3). According to the California Commission on Teacher Credentialing, special education substandard and emergency teaching permits nearly doubled between 2011 and 2016 (Carver-Thomas & Darling-Hammond, 2017). Over the same time period, preliminary highly qualified credentialing dropped by nearly 30%. These trends correlate with and are perhaps partially driven by an increase in students identified for special education services.

Table 2 (see Appendix B) traces the reported special education enrollment from the first authorization of the Individuals with Disabilities Act (1975) to the most recently available year. Trends demonstrate a sharp uptick from 1976 to 2001 which plateaus or diminishes to the present (NCES, 2017). Research notes that, in addition to the labor market under-producing special education teachers (McLeskey, Tyler, & Saunders Flippin, 2004), long-term filling of special education teaching positions is even more complex as these teachers are at high attrition risk through burnout (Brunsting, Sreckovic, & Lane, 2014).

Figure 3: Longitudinal Trends in CA Special Educator Teacher Credentialing



Source: California Commission on Teacher Credentialing (2016).

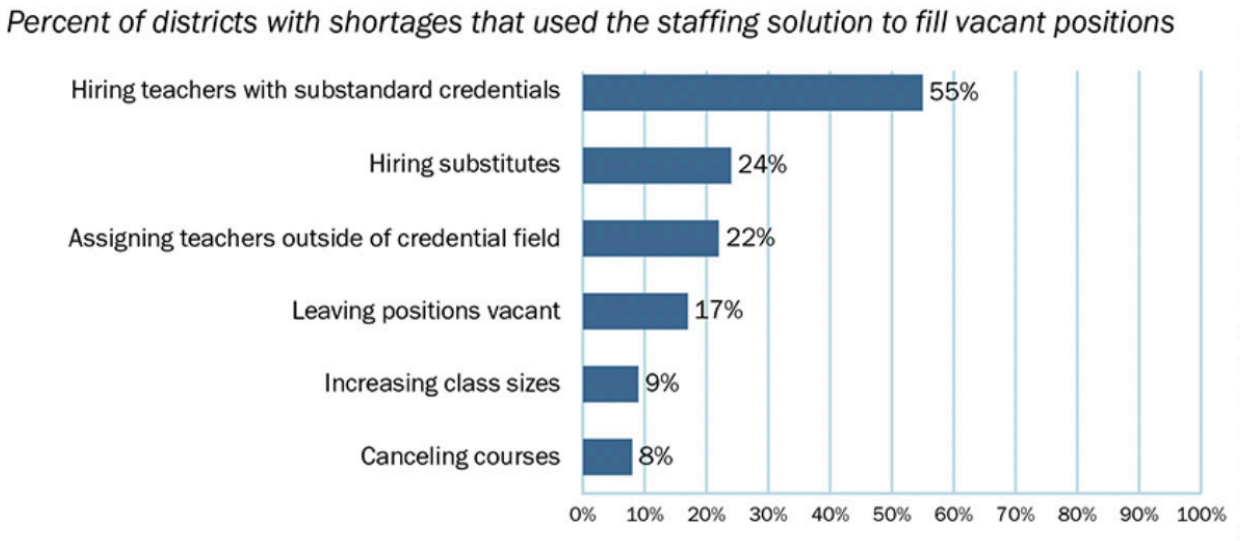
Equity Issues within special education. In addition to staffing challenges, HR managers willing to apply an equity lens must confront three additional complexities: 1) Special education teachers are concentrated in low-poverty schools and are often White (Table 3, Appendix C); 2) African American and Native American students are over-represented in special education (Table 4, Appendix D); and 3) All persons of color who receive special education services except those who identify as Asian are less likely to receive a regular education diploma than their White peers (see Table 5, Appendix E).

Therefore, though certain minorities are overrepresented in special education, their outcomes are much bleaker: 21.2% of African American and 18.5% of Latinx special education students exit school without receiving a diploma. In contrast, only 14.5% of White and 7.6% of Asian counterparts do so (Table 5, Appendix E). Though this may be partially explained through disability type (Table 4, Appendix D), primary research supports persons of color experience a "double stigmatizing" (Craft & Howley, 2018) and that access to teachers of color can mitigate this stigmatizing effect (Milner, Pearman, & McGee, 2013; Matias, 2016).

The Research: Why Grow-Your-Own Models Meet Unique Challenges

What are districts doing now? K-12 districts face steep challenges in staffing special education classrooms with highly qualified teachers and in generating equitable special education outcomes. Eighty-eight percent of California districts who face special education teaching shortages report currently filling them with persons holding either substandard or no credential (See Figure 4; Podolsky & Sutcher, 2016). Interview conversations conducted with two Sacramento-area HR personnel indicate the region's schools respond similarly. One explained, "We may know the person isn't the best fit, and the placement is always a challenge. But we're tied by the number of students we have to serve. Ultimately, we've been using [interns] more than we like. That's part of what's driving us to look for other solutions here" (Personal Communication, 6 June 2019).

Figure 4: CA Respondents to Strategies Used to Fill Hard to Staff Positions



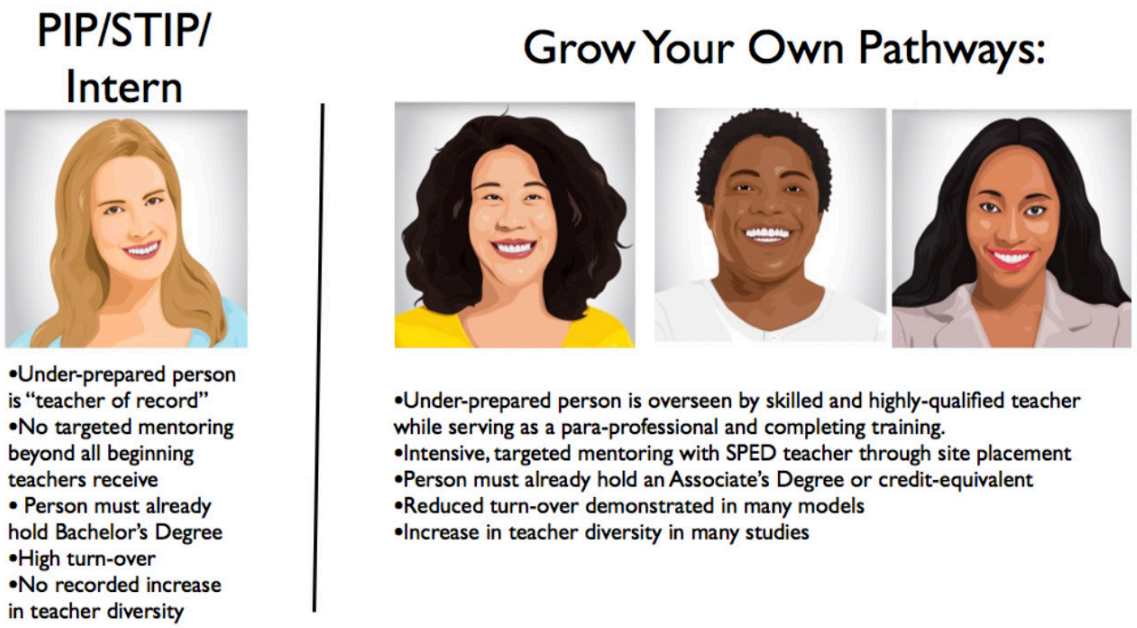
Source: California School Boards Association (CSBA) and the Learning Policy Institute, 2016.

While clearly widespread, special education positions staffed with non-credentialed or emergency placements as shown above (often through Provisional Intern (PIP) or Short-Term Staff Permits (STIP)) have several disadvantages for long-term workforce stability and student outcomes (California Commission on Teacher Credentialing, 2012). First, both PIP and STIP internships place under-trained teachers in front of students with the highest socio-emotional needs (Ruijs, Van der Veen, & Peetsma, 2010), which research has found may contribute to classroom environments that negatively impact learning beyond that school year (Mohr & Anderson, 2001). Second, internships couple balancing multiple subject domains with those least-experienced pedagogically (Sindelar, Fisher, & Myers, 2016) and fail to include targeted mentoring, which research has demonstrated as critical to reduce turnover in

hard-to-staff positions (Ingersoll, Merrill, & May, 2014). Last, though internships provide a pathway to teaching for those already holding a bachelor's degree, they do not demonstrate recruiting more persons of color nor reduced attrition rates as compared with traditional models (Bireda, & Chait, 2011).

Why is GYO a better solution? In contrast, site-originated GYO models pair currently employed paraprofessionals with highly qualified special education teachers in an ongoing and embedding mentorship which research demonstrates is highly effective (Carter, O'Rourke, Sisco, & Pelsue, 2009; Brownell, Sindelar, Kiely, & Danielson, 2010). While still employed as a paraprofessional, support staff works with a partner institution of higher learning to complete necessary bachelor's degree requirements. In this way, GYO models eliminate a significant barrier for those who would otherwise need to exit employment to gain teacher certification. Figure 5 illustrates the relative merits of GYO models contrasted with interns.

Figure 5: Emergency Certification Vs. Grow Your Own Models



Sources: Carver-Thomas, 2018; Carter, O'Rourke, Sisco, & Pelsue, 2009; Brownell, Sindelar, Kiely, & Danielson, 2010; Gist, 2017; and California Commission on Teacher Credentialing, 2018

As illustrated, GYO models recruit more diverse teacher candidates measured both by race/ethnicity and gender (Gist, 2017) and demonstrate better long-term teacher retention than traditional or intern models by reducing job-shock and inculturation timelines (McCullom, 2011; Fortner, Kershaw, Bastian, & Lynn, 2015). Steep upticks in retention are also evident across many GYO models. A 2011 examination of a GYO special education model found a near 60% same-school six-year retention rate for program completers (Abramowitz & D'Amico, YEAR). Lau et al. (2007) report even stronger retention rates – over 90% ten years after completion – in their AASU Pathways Program evaluation. These findings are significant as evidence suggests teachers of color raise both academic outcomes and feelings of acceptance in students of color (Carver-Thomas, 2018) and previously referenced national statistics indicate overrepresentations of students of color in special education (NCES, 2016).

Furthermore, GYO models often mitigate barriers for diverse and community-based special education candidates which districts sorely lack (Madda & Schultz, 2009). Shroyer et al. (2009) reports all Latinx teacher candidates found the GYO model of financial support and peer mentoring to be "very" or "extremely" beneficial while completing the program. A Chicago-based bilingual GYO model, Project 29, has also related success in imbuing the district with the linguistic and cultural capital of its community-based recruits (Sakash & Chou, 2007).

GYO models for targeted teacher recruitment are not new. From the mid-1960s, programs emerged concentrated in inner-city school systems largely in response to federal policies to address social inequities (Gist, Bianco, & Lynn, 2018). GYO has recently enjoyed a resurgence in popularity with states such as California, Illinois, and Washington, stimulating growth through grant funds (Muniz, 2018). In a televised interview with Eric Duncan, former policy fellow at the U.S. Department of Education, Duncan reported current GYO site-based models in Chicago, Tennessee, and Portland are flourishing by connecting community-based practitioners with a service area most in need (American Institutes for Research, 2017).

In California, the 2018-19 state budgets included a $50 million allocation for site-based GYO development termed "Special Education Teacher Residency Grants" (California Commission on Teacher Credentialing, 2018). Twenty-six Local Education Agencies (LEAs) across the state have received funding for the 2019-20 school year for a five-year scaling of GYO; this program supplements Local Solutions Grants under which funds can also be used to implement a site-based GYO model or for other incentives (California Commission on Teacher Credentialing, 2018b). In an interview, an HR manager responsible for writing and overseeing that LEA's grant stated, "The money will help us tremendously scale what we've already been doing here. We know if we can help our [paraprofessionals] become full teachers, that's a win for both of us. In this program, we are looking for how we help them stay employed full-time with us and get their course work paid for. In turn, we know they will be with us for some time... Everyone wins, especially the students who already have relationships with these people" (Personal Communication, 6 June 2019).

In addition to their more general purpose of boosting supply for hard-to-staff teaching positions, these grants aim to promote diverse candidate entry through both selective recruitment and an ongoing support model discussed in the following section. Two-thirds of K-12 grant recipients currently partner with a California State University (CSU) campus which describes these residencies as a tool to "diversity the teaching profession" (CSU Office of the Chancellor, 2018, pg 3). As they are at the beginning stages of implementation, future research will be required to assess their ability to recruit and retain these targeted populations.

The Positionality: Leadership and Motivation Theory: HR Beyond Compliance

Implementing Grow-Your-Own models for Special Education teacher recruitment is a long-term solution which must be carefully scaled. HR personnel seeking to realize a program at their districts should be versed in both leadership and motivation theory, as a successful GYO model requires distributed leadership capabilities and strong knowledge of personnel needs. Here, the author explores Leader-Member Exchange Theory (LMX) and its application in enacting GYO models at the district level.

Leader-Member Exchange Theory (LMX) holds that effective leadership derives from relationship and acculturation (Dansereau, Graen, & Haga, 1975; Gerstner & Day, 1997). More specifically, it theorizes employees move through a continuum of belonging in a new institution – from stranger to acquaintance to mature partner – as relationship, trust, and reciprocal influence build (Nevarez & Wood, 2010). Much research supports the notion that authentic relationships with peers and supervisors reduce turnover and inure early-career teachers in otherwise challenging work environments (Lau et. al., 2007; Player, Youngs, Perrone, & Grogan, 2017; Weiqi, C., 2007).

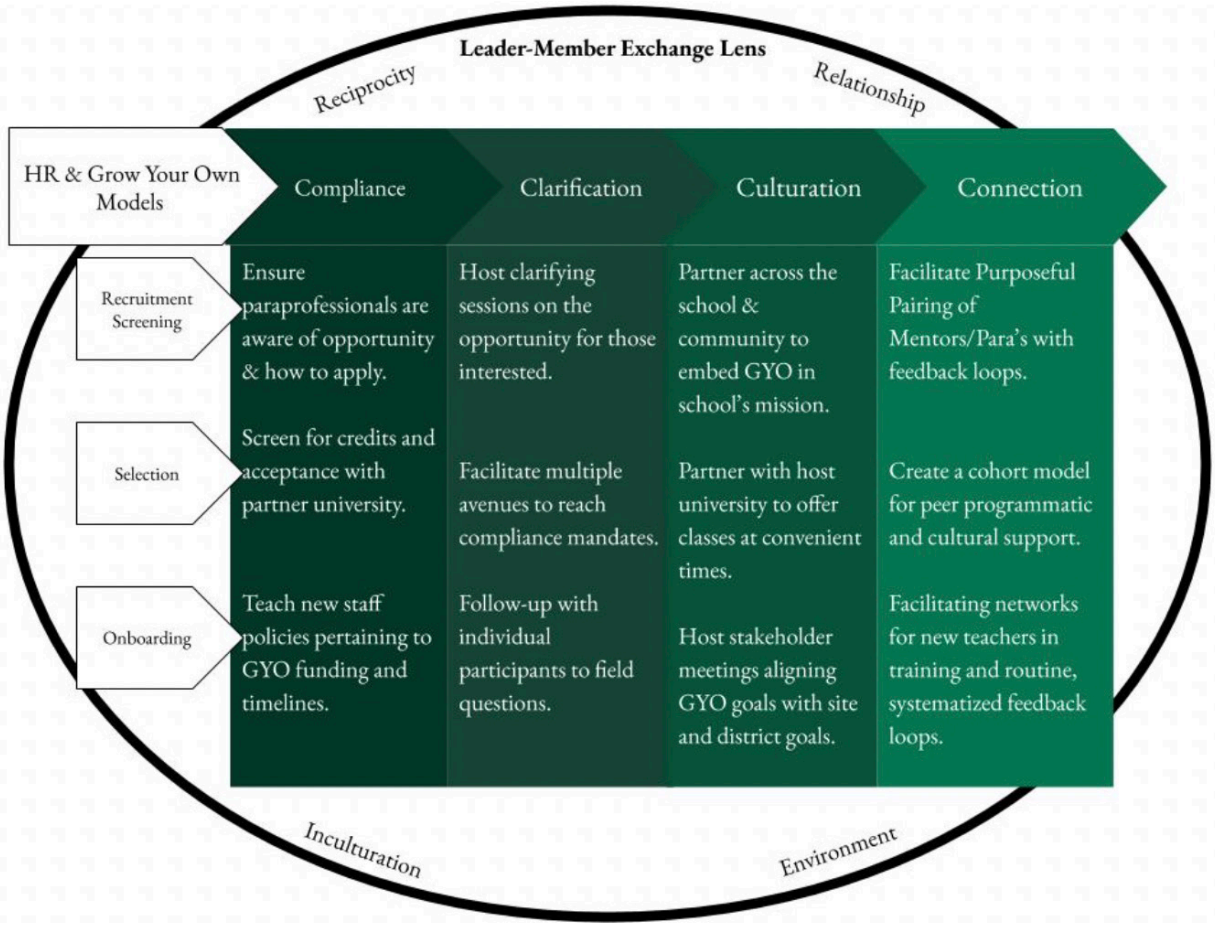
Applying LMX theory, GYO teacher development programs demonstrate distinct advantages over traditional or intern models as GYO necessitates embedded ongoing, relationship-driven mentoring of the paraprofessional, a type of mentoring associated with higher retention Bressman, Winter, & Efron, 2018). Therefore, faithful application of LMX theory requires carefully selected pairing and relationship-building for mentor teachers and paraprofessionals. HR personnel who can successfully negotiate this mentor/mentee pairing should see reduced attrition (Van Dick et. al., 2004) and increased work performance (Clarke & Mahadi, 2017) in candidates.

GYO models also offer an opportunity for equity-minded solutions to previously illustrated special education outcome disparities. Lau, Dandy & Hoffman (2007) demonstrate when GYO candidates are preferentially selected based on community representation, disparities in numbers of teachers of color and outcomes for students of color lessen. However, this is not to say GYO models serve as an equity panacea. An Illinois program was found to have counseled out a large number of teachers of color prior to their completion (Hunt et. al., 2002), and structural obstacles such as certification exams, child care costs, and transportation supports have all been cited by non-continuing diverse participants as a substantial factor in their exit decision (Ross & Ahmed, 2016).

Interviews with those implementing GYO echoed the research. One HR manager states, "I think the big benefit we see to the relationship piece is that we require the aide [paraprofessional] to get a mentor-teacher sign off on the application. That means that everyone who is hired as an aid at our school knows that this opportunity to move up exists and that it's contingent in part on relationship building... negotiating a stressful workload as a team" (Personal Communication, 6 June 2019). Another HR manager added, "For us, we try to be strategic from day one about where aids are placed and that aid/teacher relationship. It's as much on the certified teacher, or even more, than the aide to build that bridge. We learned through this [GYO] program we are starting, we didn't know that some relationships we thought were fine actually weren't. So I'd say examining those channels for communication with new hires is a key piece to get right if the hire is going to last at your school" (Personal Communication, 6 June 2019).

Therefore, HR managers overseeing a GYO model may utilize Leader-Member Exchange Theory tenants to smooth the process. LMX holds that a Grow-Your-Own model will be best implemented if reciprocity, relationship, site environment, and effective inculturation have all been part of the planning and actualizing process, a lens to which the author now turns in direct GYO proposed solutions.

Figure 6: Moving Beyond Compliance for GYO Implementation



The Proposal: Implementing Grow-Your-Own at the Site Level

By adapting the 4 C's model to the Grow-Your-Own process (See Figure 6), and by implementing the tenets of LMX discussed previously, the author makes several recommendations to HR managers wishing to begin a GYO model for special education teacher pipelines.

1) Recognize need for long-term planning and conduct needs analysis. While GYO models demonstrate empirical benefits, they are not an immediate solution to staffing shortages. HR managers must therefore forecast future needs and respond accordingly while understanding immediate needs may require a short-term alternative solution. Successful programs require careful consideration of both need and capacity. An internal personnel file audit, including forecasted staffing needs, paraprofessionals' current education records, and veteran teachers who may serve as quality mentors, may help the HR manager begin.

2) Develop capacity through culture and strategic partnering. As illustrated in Figure 6, successful GYO programs are embedded in the fabric of the LEA's culture. Because they require partnering with an institution of higher learning as well as a significant investment in time and human capital, GYO models should be seen as a natural extension of the school's mission to bring educational opportunities to the community. HR members should therefore carefully solicit buy-in and craft messaging that situates GYO at the center of the school's pathos for equity and change while communicating the dollar value of the program. One such example of successful strategic partnering can be found in a 2006 study wherein northern California's University of San Francisco, regional K-12 schools and the Multicultural Alliance/AmeriCorps joined together in an effort to recruit candidates for a community-based GYO model. It placed 400 new, highly diverse teachers before it was later unfunded due to 2008 recession budget cuts (Nuñez & Fernandez, 2006).

3) Shadow implementing programs. While not always feasible, shadowing LEAs which are currently implementing a GYO model is a desirable advantage for those who seek to begin a local program. HR members should hope to interview community stakeholders, HR and other leadership team members, participating teachers, and participating paraprofessionals to obtain a snapshot of opportunity and potential pitfalls. Well-established programs exist throughout the nation, as mentioned previously in this text, while more emergent programs in California are published on online lists hosted by the California Commission on Teacher Credentialing.

Conclusion

This brief analyzes the implementation process of a Grow-Your-Own (GYO) model to address special education certified teacher recruitment and retention. Using both Leader-Member Exchange theory and primary research, it provides human resources members information on a) gaps in special education teacher supply and equity outcomes, b) why GYO meets these challenges, c) LMX theories and personal communication on GYO best practices, and d) how implementation of GYO modeling works at the site level.

Author Bio

Meredith Galloway is a lifelong educator who finds her passion and purpose by unlocking excellence in others. She envisions a world where all teachers feel valued and vibrant and works to leverage partnerships to enact that vision. Meredith works as a research assistant at Sacramento State where she is pursuing her doctorate in Educational Leadership. Her research includes global trends in education, school privatization, and teacher labor markets. When not working, Meredith can be found running on Sacramento's river trail, or enjoying her family with a mug of coffee in tow.

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Appendix A

Table 1: Percent Schools Reporting "Very Difficult or Unable to Fill" Teaching Vacancies, by field and selected school characteristics: 2015–16

Selected school characteristic	General Elementary	Special Education	Middle School/High School, Single Subject	English as a Second Language (ESL)	Foreign Languages	Music or art	Career or technical eduation
All Public Schools	**9.1**	**31.4**	**23.6**	**28.6**	**36.5**	**15.3**	**30**
By percent of K-12 students who recieved free or reduced price lunches (FRL)							
0-34	5.3	30.5	19.2	23.3	34.2	13.6	34.6
35-49	5.2	32.1	24.74	26.3	34.6	14	29.3
50-74	10.2	31.1	24.52	35.6	45.8	13	29.6
75 or more	13.0	33.1	27.24	30.7	35.8	19.7	24

Source: NCES National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

Appendix B

*Table 2 Special Education Disability by Type as a Percentage of Total K-12 Enrollment, Longitudinal by Selected Years from 1976-77 to 2014-15.***

Type of Disability	1976–77	1980–81	1990–91	2000–01	2010–11	2014–15
All disabilities	**8.3**	**10.1**	**11.4**	**13.3**	**13.0**	**13.0**
Autism	—	—	—	0.2	0.8	1.1
Deaf-blindness	—	#	#	#	#	#
Developmental Delay	—	—	—	0.5	0.8	1.1
Emotional Disturbance	0.6	0.8	0.9	1	0.8	0.7
Hearing Impairment	0.2	0.2	0.1	0.2	0.2	0.2
Intellectual Disability	2.2	2	1.3	1.3	0.9	0.8
Multiple Disabilities	—	0.2	0.2	0.3	0.3	0.3
Orthopedic impairment	0.2	0.1	0.1	0.2	0.1	0.1
Other health impairment^	0.3	0.2	0.1	0.6	1.4	1.7
Specific learning disabilities	1.8	3.6	5.2	6.1	4.8	4.5
Speech or language impairment	2.9	2.9	2.4	2.9	2.8	2.6
Traumatic brain injury	—	—	—	#	0.1	0.1
Visual impairment	0.1	0.1	0.1	0.1	0.1	0.1

^ Other health impairments include having limited strength, vitality, or alertness due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes.

— Not available.

Rounds to zero

*Source: NCES Table 204.30 (2017). Children 3 to 21 years old served under Individuals with Disabilities Education Act (IDEA), Part B, by type of disability: Selected years, 1976-77 through 2014-15 **Figure here represents total enrollments in program as a percent of total k-12 enrollments in both traditional public and charter schools. Figure does not account for private, non-charter school enrollments such as parochial schools.*

Appendix C

*Table 3 Number and percentage distribution of K–12 public school teachers who reported special education as their main teaching assignment field by sex, and selected school and teacher characteristics: 2011–12***

School and teacher characteristics	Total	Percent Total	Percent Female	Percent Male
All public special education school teachers, by gender	430,600	100	86.1	13.9
School site Percent of K–12 students who were approved for free or reduced-price lunches				
0-34	134,890	31.3	86.4	13.6
35-49	70,000	16.3	83.7	16.3
50-74	119,370	27.7	87	13.0
75 or more	100,040	23.2	87	13.0
School did not participate	6,300	1.5	72.1	27.9
Teacher Race/ethnicity				
Hispanic, regardless of race	22,600	5.2	83.4	16.6
White, non-hispanic	353,420	82.1	86.4	13.6
Black or African-American, non-Hispanic	36,640	8.5	84.1	15.9

*Source: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Teacher Data File," 2011–12. **Figure here represents teachers who report special education as their main teaching assignment as a percent of total k-12 teachers in both traditional public and charter schools. Figure does not account for private, non-charter school teachers such as parochial schools.*

Appendix D

*Table 4 Percentage of students served under the Individuals with Disabilities Education Act (IDEA), Part B, by race/ethnicity as a percent of total enrollment, and type of disability: 2017-18 ***

Type of Disability	White	African American	Latinx	Asian	Pacific Islander	American Indian/Native Alaskan	Two or more races
All disabilities	**14.1**	**16.0**	**13.0**	**7.1**	**10.9**	**17.5**	**13.8**
Autism	1.5	1.3	1.2	1.7	1	1.1	1.5
Deaf-blindness	#	#	#	#	#	#	#
Developmental Delay	1	1.1	0.7	0.6	0.8	1.8	1.1
Emotional Disturbance	0.7	1.1	0.4	0.1	0.4	0.9	0.9
Hearing Impairment	0.1	0.1	0.2	0.2	0.2	0.2	0.1
Intellectual Disability	0.8	1.4	0.8	0.4	0.8	1.1	0.7
Multiple Disabilities	0.3	0.3	0.2	0.2	0.3	0.4	0.2
Orthopedic impairment	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other health impairment^	2.3	2.4	1.4	0.6	1.2	2.1	2.2
Specific learning disabilities	4.2	5.8	5.3	1.4	4.6	6.9	4.1
Speech or language impairment	2.9	2.3	2.6	1.8	1.4	2.9	2.7
Traumatic brain injury	0.1	0.1	#	#	#	0.1	0.1
Visual impairment	0.1	0.1	#	#	0.1	0.1	#

^ Other health impairments include having limited strength, vitality, or alertness due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes.

Rounds to zero

Source: NCES Table 204.50 (2017). Percentages for 3- to 5-year-olds by sex are based on total public school enrollment in prekindergarten and kindergarten by sex. Percentages for 6- to 21-year-olds by sex are based on total public school enrollment in grades 1 through 12 by sex. Percentages for 3- to 21-year-olds by race/ethnicity are based on total public school enrollment in prekindergarten through grade 12 by race/ethnicity.

Appendix E

Table 5 Percentage distribution of 14- through 21-year-old students served under the Individuals with Disabilities Education Act (IDEA), Part B, who exited school, by exit reason

Enrollment/ Dropout Status	Total	White	African American	Latinx	Asian	Pacific Islander	American Indian/ Native Alaskan	Two or More Races
Proportional Enrollment		**14.1**	**16.0**	**13.0**	**7.1**	**10.9**	**17.5**	**13.8**
Total number enrolled in Special Education Services, Ages 14–24	**413,353**	203,362	86,180	96,796	7,365	1,736	6,511	11,403
Percent by Enrollment, **Graduated** with Regular Diploma	**70.9**	74.3	63.7	70.3	76.5	69.4	68.3	68.2
Percent by Enrollment, **Dropout** or otherwise unknown to continue	**17.1**	14.5	21.2	18.5	7.6	21.4	26.5	20.9

Source: NCES Table 219.90. (2017). Percentages for 3- to 5-year-olds by sex are based on total public school enrollment in prekindergarten and kindergarten by sex. Percentages for 6- to 21-year-olds by sex are based on total public school enrollment in grades 1 through 12 by sex. Percentages for 3- to 21-year-olds by race/ethnicity are based on total public school enrollment in prekindergarten through grade 12 by race/ethnicity.